In the Claims

This following listing of claims replaces all prior versions and listings of claims.

1. (CURRENTLY AMENDED) A computing system for obtaining run-time internal state data within an application program, the computing system comprising:

an init module for determining if the run-time internal state data is to be collected during the operation of the application program;

a performance code marker module for obtaining and storing the run-time internal state data for later retrieval at predefined points corresponding to permanently inserted performance markers, wherein the application program calls the performance code marker module each time one of the permanently inserted performance markers is reached; and

an uninit module for formatting and storing the obtained run-time internal state data into memory that permits retrieval after the termination of the application program;

wherein

the init module is executed before any run-time internal state data is collected;

the performance code marker module is executed each time run-time internal state data is to be collected; and

the uninit module is executed after all run-time internal state data desired has been collected.

2. (ORIGINAL) The computing system according to claim 1, wherein the init module determines if run-time internal state data is to be collected.

3. (ORIGINAL) The computing system according to claim 2, wherein init module makes the determination that run-time internal state data is to be collected by checking for the existence of an identification key within a system registry;

the identification key uniquely identifies the processing modules to be used to collect, format, and store the run-time internal state data to be collected.

4. (ORIGINAL) The computing system according to claim 3, wherein the init module further makes the determination that run-time internal state data is to be collected by checking

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for the existence of processing modules identified by the identification key within the system registry.

5. (ORIGINAL) The computing system according to claim 2, wherein the performance code marker module collects run-time internal state data only if the init module has determined that the run-time internal state data is to be collected.

6. (ORIGINAL) The computing system according to claim 5, wherein the performance code marker module generates a performance data record containing the collected run-time internal state data each time the performance code marker module is executed

7. (ORIGINAL) The computing system according to claim 6, wherein the performance code marker module stores the performance data records within a data memory block within the processing modules identified by an identification key within a system registry.

8. (ORIGINAL) The computing system according to claim 7, wherein the uninit module retrieves the performance data records from the data memory block for transfer to a mass storage device.

9. (ORIGINAL) The computing system according to claim 8, wherein run-time internal state data comprises benchmark timing data related to the time at which a code marker is reached during the execution of the application program.

10. (PREVIOUSLY PRESENTED) The computing system according to claim 9, wherein run-time internal state data comprises memory usage data related to the state of the memory used by the application program during the execution of the application program.

11. (PREVIOUSLY PRESENTED) The computing system according to claim 9, wherein run-time internal state data comprises system registry usage data related to the system registry keys used by the application program during the execution of the application program.

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12. (PREVIOUSLY PRESENTED) The computing system according to claim 9, wherein run-time internal state data comprises open file usage data related to the state of the files that are currently open during the execution of the application program.

13. (CURRENTLY AMENDED) A method for obtaining run-time internal state data within an application program, the method comprising:

permanently inserting one or more code markers into the application program at locations within the application program corresponding to the point at which run-time internal state data is desired;

determining if run-time internal state data is to be collected at each code marker by calling a performance code marker module, the performance code marker module checking for the existence of processing modules identified by an identification key within a system registry;

if run-time internal state data is to be collected at each code marker:

generating a performance data record containing the collected run-time internal state data each time the code markers are reached;

storing the performance data records within a data memory block within the processing modules identified by the identification key within the system registry;

retrieving the performance data records from the data memory block for transfer to a mass storage device once all of the run-time internal state data has been collected.

14. (ORIGINAL) The method according to claim 13, wherein run-time internal state data comprises benchmark timing data related to the time at which a code marker is reached during the execution of the application program.

15. (PREVIOUSLY PRESENTED) The computing system according to claim 13, wherein run-time internal state data comprises memory usage data related to a state of the memory used by the application program during the execution of the application program.

16. (PREVIOUSLY PRESENTED) The computing system according to claim 13, wherein run-time internal state data comprises system registry usage data related to system registry keys used by the application program during the execution of the application program.

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17. (PREVIOUSLY PRESENTED) The computing system according to claim 13, wherein run-time internal state data comprises open file usage data related to a state of the files that are currently open during the execution of the application program.

18. (CURRENTLY AMENDED) A computer data product readable by a computing system and encoding a computer program of instructions for executing a computer process for obtaining run-time internal state data within an application program, said computer process comprising the steps of:

permanently inserting one or more code markers into the application program at locations within the application program corresponding to the point at which run-time internal state data is desired;

determining if run-time internal state data is to be collected at each code marker by calling a performance code marker module;

if run-time internal state data is to be collected at each code marker:

generating a performance data record containing the collected run-time internal state data each time the code markers are reached;

storing the performance data records within a data memory block;

retrieving the performance data records from the data memory block for transfer to a mass storage device once all of the run-time internal state data has been collected.

19. (ORIGINAL) The computer data product according to claim 18, wherein the determining step makes the determination that run-time internal state data is to be collected by checking for the existence of an identification key within a system registry;

the identification key uniquely identifies the processing modules to be used to collect, format, and store the run-time internal state data to be collected.

20. (ORIGINAL) The computer data product according to claim 19, wherein the determining step further makes the determination that run-time internal state data is to be collected by checking for the existence of processing modules identified by the identification key within the system registry.

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21. (ORIGINAL) The computer data product according to claim 19, wherein the data memory block is within the processing modules identified by the identification key within the system registry.

22. (PREVIOUSLY PRESENTED) The computer data product according to claim 19, wherein run-time internal state data comprises benchmark timing data related to the time at which a code marker is reached during the execution of the application program.

23. (PREVIOUSLY PRESENTED) The computer data product according to claim 19, wherein run-time internal state data comprises memory usage data related to a state of the memory used by the application program during the execution of the application program.

24. (PREVIOUSLY PRESENTED) The computer data product according to claim 19, wherein run-time internal state data comprises system registry usage data related to system registry keys used by the application program during the execution of the application program.

25. (PREVIOUSLY PRESENTED) The computer data product according to claim 19, wherein run-time internal state data comprises open file usage data related to a state of the files that are currently open during the execution of the application program.

26. (ORIGINAL) The computer data product according to claim 19, wherein the computer data product comprises a computer readable storage medium readable by a computer upon which encoded instructions used to implement the computer process are stored.

27. (ORIGINAL) The computer data product according to claim 19, wherein the computer data product comprises a propagated signal on a carrier detectable by a computing system and encoding a computer program of instructions for executing the computer process.

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